



Dr. Stephen Thon

Surgery Guide: MISHA Implantable Shock Absorber

Your guide to Surgery and Recovery

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Advanced Orthopedic & Sports Medicine Specialists A CENTER OF CC

DISCLAIMER: This information is specifically for patients who have mild to moderate osteoarthritis (OA) in the medial (inner) part of their knee. If you have severe "bone-on-bone" osteoarthritis throughout your entire knee, a total knee replacement may be more appropriate. The MISHA Knee System is not suitable for patients with inflammatory arthritis (like rheumatoid arthritis), BMI > 35, active infection, or poor bone quality. Each patient's situation is unique, and this guide is meant to provide general information about the procedure and recovery process. Consult with your physician to determine if you are an appropriate candidate for the MISHA Knee Implant System





UNDERSTANDING THE MISHA KNEE SYSTEM

The MISHA Knee System is an implantable shock absorber designed to reduce excess forces on the Medial (inner part) of your knee during activities like walking. Unlike traditional knee surgeries, this procedure:

- Does not remove any bone or cartilage
- Is performed outside your knee joint capsule
- Preserves all future surgical options
- Provides immediate weight-bearing after surgery
- Can be combined with other knee procedures when needed (meniscus repair, etc.)

IDEAL CANDIDATES

Best candidates for the MISHA Knee System include:

- Patients with early to moderate MEDIAL knee osteoarthritis
- Those who have failed conservative treatments for at least 3 months
- Patients with prior medial meniscectomy
- Adults with BMI under 35
- Those not ready for total knee replacement

Not suitable for patients with:

- Advanced "bone-on-bone" arthritis
- Inflammatory joint disease
- Current or recent knee infection
- Failed total knee replacement
- Osteoporosis or poor bone quality

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DAY OF SURGERY

The MISHA Knee System is typically implanted as an outpatient procedure, meaning you will likely go home the same day. The procedure involves:

- Small incision on the inner side of your knee
- Placement of the device outside your knee joint capsule
- No bone cutting or removal
- Typically takes 2-3 hours
- Local anesthetic and nerve block for pain control

MEDICATIONS

You will take multiple medications as part of our opioid sparing protocol. This protocol is designed to have fewer side effects, better, pain relief, and reduced opioid use/addiction rates. There are multiple medicines we provide but none are addictive or habit forming. You will be given a small prescription of oxycodone to take ONLY AS NEEDED. Start taking your medications the day of your surgery. It is important to have started the pain medications before your block wears off and the pain returns. You should also set an alarm for the middle of the night to take your medications.

Sample Medication Schedule below starting first medicines at 8am

Three Times per Day

8am: Acetaminophen 1000mg* 2pm: Acetaminophen 1000mg* ~8pm: (or before bed)

Meloxicam 7.5mg*Methocarbamol 750mgAcetaminophen 1000mg*Methocarbamol 750mgMeloxicam 7.5mg*Omeprazole 20mgMethocarbamol 750mg

Omeprazole 20mg Methocarbamol 750mg
Aspirin 81mg

Can also alternate every 4 hours

DRESSINGS

Your outer dressings may be removed after 48 hours (or the morning of the second day). For example, if you had surgery on Monday then you may remove your dressings once you wake up Wednesday morning. Similarly, if you had surgery Wednesday you can remove the dressing Friday morning. Leave the steri-strips (little band-aids) over each incision until they fall off naturally. It is normal for your incisions to drain water like fluid that may be tinged red some time after your surgery. If you have some drainage, reapply some clean gauze with tape until the drainage stops. Do NOT apply any lotions, ointments, or other liquids (besides running water) to your incisions until they have completely closed and there are no scabs over the incisions. This usually takes at least 3-4 weeks.

SHOWERING/HYGIENE

You may shower once your dressings are removed on the second day after your surgery. You may use your normal shampoo, soap, or body wash when showering. Running water is ok over the incisions, but you may not soak or submerge your incisions in water for a minimum of 3-4 weeks after your surgery. Soaking/Submerging your incisions too soon can increase your risk of getting an infection. This means no baths, pools, hot tubs, etc... until the incision is ready. The incision is ready to be submerged once the scabs from the incision have gone away.

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MOVEMENT/ACTIVITY/CRUTCHES

Unlike many knee surgeries, you are allowed to put weight on your leg immediately after surgery as tolerated. You will be provided crutches initially for comfort and safety but can progress to walking without them as you feel comfortable and your physical therapist approves.

Early Recovery (0-2 weeks):

- Weight bearing as tolerated
- Use crutches initially for comfort
- Begin gentle range of motion exercises
- Start physical therapy within 3-5 days
- Focus on regaining normal walking pattern

TED HOSE/BLOOD CLOT PREVENTION

You will need to wear your Ted Hose (white stocking) at all times for the first two weeks,, including when you sleep You may remove them to change your clothing and to take a shower. Otherwise, they should remain in place at all times. Also when at rest make sure to perform ankle pumps multiple times per day to help reduce the risk of blood clots.

SLEEP

It is often very difficult to sleep in the first few weeks after surgery. The surgery/anesthesia itself may interfere with your sleep-wake cycle. You need to wear your brace when you sleep for the first two weeks. After that point, you do not need to wear the brace while sleeping.

DRIVING

Returning back to driving is different for everyone but for most is sometime between 2-6 weeks after surgery. It tends to be longer for those who have right leg surgery over left leg surery. Some requirements to resume driving are: you MUST no longer be taking opioid pain medications, you must be able control the steering wheel on your own while adhering to your restrictions with your knee, and your reaction time and stamina must have returned to normal. Discuss driving with your therapist to see if you are ready to return to the road on your own.

RETURN TO WORK

Going back to work is dependent on the type of job you perform. Most people take at least 1-2 weeks off from work after surgery. If you have a "desk" job", you may return to work whenever you feel comfortable to do so as long as you are able to wear your brace and adhere to the restrictions for your knee. Jobs that require heavy lifting/pushing/pulling/etc... may not be performed until much later in your recovery and may require 3+ months off of work before it is safe to return. Please discuss with your employer what (if any) light duty you may be able to perform during this time. Any paperwork required for missing time off work including FMLA should be directed to ThonCareTeam@occ-ortho.com

PHYSICAL THERAPY

Physical therapy will begin within 3-5 days after surgery. Initial focus will be on:

• Regaining range of motion, Proper walking mechanics, Quadriceps activation, Swelling management, Pain control

Progression (2-8 weeks):

 Advancing to walking without assistive device, Increasing strength exercises, Improving balance and control, Beginning more functional activities

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RETURN TO ACTIVITIES

General timeline for return to activities:

- Swimming/cycling: 4-6 weeks
- Golf: 4-6 weeks
- Jogging: 2-3 months
- Racquet sports: 3-6 months
- Skiing: 6+ months

EXPECTED RECOVERY

Clinical studies show:

- 96% of patients achieve meaningful pain relief by 2 years
- Most patients experience rapid improvement
- Return to work: 2-6 weeks depending on job demands
- Full recovery: 3-6 months for most activities

FOLLOW UP APPOINTMENTS

You will be seen a total of 6 times after your surgery to ensure your recovery is going smoothly. Full recovery from ACL Surgery is dependent on how severe your injury was to begin with. It is expected to be at least 6 to 12 months in total with gradually increasing times between each visit.

You will be seen at the following intervals after surgery:

- 2 weeks (Physician Assistant)
- 2 months (Physician Assistant)
- 4 months (Physician Assistant)
- 6 months (Dr. Thon)
- 8 months (Physician Assistant)
- 10 months (Physician Assistant)
- 12 months (Dr. Thon)

THINGS TO LOOK OUT FOR AFTER SURGERY?

Continue to look out for any fevers greater than 100.4 degrees F (38.0 degrees C) or if your incisions/shoulder becomes increasingly swollen, red, warm to the touch, or having drainage that is thick or chalky. In addition, your pain should continue to decrease with time.

FAQ'S

Q: How is the MISHA Knee System different from a total knee replacement?

A: The MISHA Knee System is fundamentally different from a total knee replacement as it doesn't remove any bone or cartilage and is placed outside your knee joint capsule. It acts as an external shock absorber rather than replacing joint surfaces. This means it preserves all future surgical options, including total knee replacement if needed later.

Q: How long will the surgery take?

A: The procedure typically takes 2-3 hours, but expect to be at the surgical facility for 4-5 hours total.

Q: Will I feel the device under my skin?

A: Yes, you may be able to feel the device when touching the inner side of your knee. This is normal and typically not painful.

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Q: How long will the device last?

A: Long-term studies are ongoing, but current data shows good durability at 2-3 years. The device can be removed if needed, and other surgical options remain available.

Q: What if the device doesn't work for me?

A: About 14% of patients have had their device removed within 2 years. Of these, 90% continued to experience benefit even after removal.

Q: When can I return to work?

A: Return to work varies by job type:

Desk work: 2-3 weeks
Light duty: 3-4 weeks
Moderate work: 4-6 weeks
Heavy labor: 8+ weeks

Q: Will I need to take time off from driving?

A: The timing for return to driving depends on several factors, including which knee was operated on and whether you drive an automatic or manual transmission. If it's your right knee, you'll need to demonstrate adequate control and strength before driving, typically 2-3 weeks after surgery. If it's your left knee and you drive an automatic, you may be able to return to driving sooner, as long as you're not taking narcotic pain medication.

Q: How much pain should I expect after surgery?

A: Pain levels vary by individual, but the procedure uses a comprehensive pain management protocol including local anesthetic and nerve blocks. Most patients report moderate pain for the first few days that gradually improves. The medication schedule provided helps manage pain while minimizing opioid use. Many patients find the pain quite manageable with the prescribed medication protocol.

Q: Can I travel after getting the MISHA Knee System?

A: Once you've healed (typically 6-8 weeks post-surgery), you can travel. However, on long trips, it's important to get up and move regularly to prevent stiffness and reduce the risk of blood clots. You should discuss any travel plans with Dr. Thon, especially for the first few months after surgery.

Q: Will the device set off metal detectors?

A: Yes, the MISHA Knee System may trigger metal detectors. You should inform security personnel that you have a medical implant. While not typically necessary, you can request documentation about your implant from our office for travel purposes.

Q: What impact does weather have on the device?

A: Some patients may experience mild weather-related symptoms similar to other joint conditions. However, the MISHA system is designed to function consistently across normal temperature ranges. Any significant pain or changes in function should be reported to Dr. Thon's office.

Q: Can I kneel after getting the MISHA Knee System?

A: While kneeling is possible after full recovery, you should avoid direct pressure on the surgical area for at least 6-8 weeks. When you do return to kneeling, use a cushioned surface and pay attention to any discomfort. Some patients may experience mild discomfort with direct pressure on the implant area.

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